

**WEST VERMONT SITE  
SPEEDWAY, MARION COUNTY, INDIANA  
DATA VALIDATION REPORT**

**Date:** October 11, 2013

**Laboratory:** ALS Environmental (ALS), Holland, Michigan

**Laboratory Project #:** 1310486 and 1310526

**Data Validation Performed By:** Lisa Graczyk, Weston Solutions, Inc. (WESTON®) Superfund Technical Assessment and Response Team (START)

**Weston Analytical TDD/Work Order #:** S05-0001-1306-013/20405.016.001.2190.00

This data validation report has been prepared by WESTON START under the START III Region V contract. This report documents the data validation for 8 groundwater samples collected for the West Vermont Site that were analyzed for the following parameters and methods.

- Dissolved Gases (Methane, Ethane, and Ethene) by RSK-175

A level II data package was requested from ALS. The data validation was conducted in general accordance with the U.S. Environmental Protection Agency "Contract Laboratory Program National Functional Guidance for Superfund Organic Methods Data Review" dated June 2008. The Attachment contains the results summary sheets with the hand-written qualifiers applied during data validation.

**METHANE, ETHANE, AND ETHENE BY RSK-175**

**1. Samples**

The following table summarizes the samples for which this data validation is being conducted.

<b>Samples</b>	<b>Lab ID</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Date Analyzed</b>
WVS-MWWES-04A-100813-GW	1310486-01	Water	10/8/2013	10/10/2013
WVS-MWWES-04B-100813-GW	1310486-02	Water	10/8/2013	10/10/2013
WVS-MWWES-03A-100813-GW	1310486-03	Water	10/8/2013	10/10/2013
WVS-MWWES-03B-100813-GW	1310486-04	Water	10/8/2013	10/10/2013
WVS-MWWES-05A-100813-GW	1310486-05	Water	10/8/2013	10/10/2013
WVS-MWWES-05B-100813-GW	1310486-06	Water	10/8/2013	10/10/2013
WVS-MWWES-DUP 1-100913-GW	1310526-01	Water	10/9/2013	10/10/2013
WVS-MWWES-05C-100913-GW	1310526-02	Water	10/9/2013	10/10/2013
WVS-MWWES-02A-100913-GW	1310526-03	Water	10/9/2013	10/10/2013
WVS-MWWES-02B-100913-GW	1310526-04	Water	10/9/2013	10/10/2013
WVS-MWWES-02C-100913-GW	1310526-05	Water	10/9/2013	10/10/2013
WVS-MWWES-01A-100913-GW	1310526-06	Water	10/9/2013	10/10/2013
WVS-MWWES-01B-100913-GW	1310526-07	Water	10/9/2013	10/10/2013
WVS-MWWES-01C-100913-GW	1310526-08	Water	10/9/2013	10/10/2013

2. **Holding Times**

The samples were analyzed within the required holding time limit of 14 days from sample collection.

3. **Blanks**

Method blanks were analyzed with the dissolved gas analyses and were free of target compound contamination above the reporting limit.

4. **Laboratory Control Sample (LCS) Results**

The LCS recoveries were within laboratory quality control (QC) limits.

5. **Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results**

A site-specific MS and MSD were analyzed using sample WVS-MWWES-DUP 1-100913-GW. The percent recoveries and relative percent differences (RPD) were within QC limits except for as follows. Methane had a high recovery. Because methane was not detected in the sample, no qualification was applied.

6. **Field Duplicate Results**

Sample WVS-MWWES-DUP 1-100913-GW is a field duplicate of sample WVS-MWWES-01B-100913-GW. Both samples contained no detections of VOCs indicating good correlation between the samples.

7. **Overall Assessment**

The dissolved gas data are acceptable for use based on the information received.

Data Validation Report  
West Vermont Site  
Pace Analytical Services, Inc.  
Laboratory Project #: 1310486 and 1310526

## **ATTACHMENT**

### **ALS ENVIRONMENTAL RESULTS SUMMARY**

**Client:** Weston Solutions, Inc  
**Project:** West Vermont Street  
**WorkOrder:** 1310486

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
µg/L	Micrograms per Liter

# ALS Group USA, Corp

Date: 10-Oct-13

Client: Weston Solutions, Inc

Project: West Vermont Street

Sample ID: WVS-MWWES-04A-100813-GW

Collection Date: 10/08/13 10:22 AM

Work Order: 1310486

Lab ID: 1310486-01

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>GASES IN WATER</b>			<b>RSK-175</b>			Analyst: <b>CW</b>
Ethane	ND		2.0	µg/L	1	10/10/13 10:15 AM
Ethene	ND		2.0	µg/L	1	10/10/13 10:15 AM
Methane	ND		1.0	µg/L	1	10/10/13 10:15 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

## ALS Group USA, Corp

Date: 10-Oct-13

**Client:** Weston Solutions, Inc

**Project:** West Vermont Street

**Sample ID:** WVS-MWWES-04B-100813-GW

**Collection Date:** 10/08/13 12:05 PM

**Work Order:** 1310486

**Lab ID:** 1310486-02

**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>GASES IN WATER</b>			<b>RSK-175</b>			Analyst: <b>CW</b>
Ethane	ND		2.0	µg/L	1	10/10/13 10:17 AM
Ethene	ND		2.0	µg/L	1	10/10/13 10:17 AM
Methane	ND		1.0	µg/L	1	10/10/13 10:17 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

## ALS Group USA, Corp

Date: 10-Oct-13

**Client:** Weston Solutions, Inc

**Project:** West Vermont Street

**Sample ID:** WVS-MWWES-03A-100813-GW

**Collection Date:** 10/08/13 02:27 PM

**Work Order:** 1310486

**Lab ID:** 1310486-03

**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>GASES IN WATER</b>			<b>RSK-175</b>			Analyst: <b>CW</b>
Ethane	ND		2.0	µg/L	1	10/10/13 10:19 AM
Ethene	ND		2.0	µg/L	1	10/10/13 10:19 AM
Methane	ND		1.0	µg/L	1	10/10/13 10:19 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

## ALS Group USA, Corp

Date: 10-Oct-13

**Client:** Weston Solutions, Inc

**Project:** West Vermont Street

**Sample ID:** WVS-MWWES-03B-100813-GW

**Collection Date:** 10/08/13 03:32 PM

**Work Order:** 1310486

**Lab ID:** 1310486-04

**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>GASES IN WATER</b>			<b>RSK-175</b>			Analyst: <b>CW</b>
Ethane	ND		2.0	µg/L	1	10/10/13 10:21 AM
Ethene	ND		2.0	µg/L	1	10/10/13 10:21 AM
<b>Methane</b>	<b>29</b>		<b>1.0</b>	<b>µg/L</b>	1	10/10/13 10:21 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



## ALS Group USA, Corp

Date: 10-Oct-13

**Client:** Weston Solutions, Inc

**Project:** West Vermont Street

**Sample ID:** WVS-MWWES-05A-100813-GW

**Collection Date:** 10/08/13 05:27 PM

**Work Order:** 1310486

**Lab ID:** 1310486-05

**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>GASES IN WATER</b>			<b>RSK-175</b>			Analyst: <b>CW</b>
Ethane	ND		2.0	µg/L	1	10/10/13 10:23 AM
Ethene	ND		2.0	µg/L	1	10/10/13 10:23 AM
Methane	ND		1.0	µg/L	1	10/10/13 10:23 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

## ALS Group USA, Corp

Date: 10-Oct-13

Client: Weston Solutions, Inc

Project: West Vermont Street

Sample ID: WVS-MWWES-05B-100813-GW

Collection Date: 10/08/13 06:47 PM

Work Order: 1310486

Lab ID: 1310486-06

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>GASES IN WATER</b>			<b>RSK-175</b>			Analyst: <b>CW</b>
Ethane	ND		2.0	µg/L	1	10/10/13 10:26 AM
Ethene	ND		2.0	µg/L	1	10/10/13 10:26 AM
<b>Methane</b>	<b>5.5</b>		<b>1.0</b>	<b>µg/L</b>	1	10/10/13 10:26 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 10-Oct-13

Client: Weston Solutions, Inc

Project: West Vermont Street

Sample ID: WVS-MWWES-DUP 1-100913-GW

Collection Date: 10/09/13

Work Order: 1310526

Lab ID: 1310526-01

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>GASES IN WATER</b>			<b>RSK-175</b>			Analyst: <b>CW</b>
Ethane	ND		2.0	µg/L	1	10/10/13 11:20 AM
Ethene	ND		2.0	µg/L	1	10/10/13 11:20 AM
Methane	ND		1.0	µg/L	1	10/10/13 11:20 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

## ALS Group USA, Corp

Date: 10-Oct-13

**Client:** Weston Solutions, Inc

**Project:** West Vermont Street

**Sample ID:** WVS-MWWES-05C-100913-GW

**Collection Date:** 10/09/13 09:37 AM

**Work Order:** 1310526

**Lab ID:** 1310526-02

**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>GASES IN WATER</b>			<b>RSK-175</b>			Analyst: <b>CW</b>
Ethane	ND		2.0	µg/L	1	10/10/13 11:22 AM
Ethene	ND		2.0	µg/L	1	10/10/13 11:22 AM
Methane	ND		1.0	µg/L	1	10/10/13 11:22 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

## ALS Group USA, Corp

Date: 10-Oct-13

**Client:** Weston Solutions, Inc

**Project:** West Vermont Street

**Sample ID:** WVS-MWWES-02A-100913-GW

**Collection Date:** 10/09/13 11:25 AM

**Work Order:** 1310526

**Lab ID:** 1310526-03

**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>GASES IN WATER</b>			<b>RSK-175</b>			Analyst: <b>CW</b>
Ethane	ND		2.0	µg/L	1	10/10/13 11:24 AM
Ethene	ND		2.0	µg/L	1	10/10/13 11:24 AM
Methane	ND		1.0	µg/L	1	10/10/13 11:24 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

## ALS Group USA, Corp

Date: 10-Oct-13

**Client:** Weston Solutions, Inc

**Project:** West Vermont Street

**Sample ID:** WVS-MWWES-02B-100913-GW

**Collection Date:** 10/09/13 12:32 PM

**Work Order:** 1310526

**Lab ID:** 1310526-04

**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>GASES IN WATER</b>			<b>RSK-175</b>			Analyst: <b>CW</b>
Ethane	ND		2.0	µg/L	1	10/10/13 11:25 AM
Ethene	ND		2.0	µg/L	1	10/10/13 11:25 AM
Methane	ND		1.0	µg/L	1	10/10/13 11:25 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

## ALS Group USA, Corp

Date: 10-Oct-13

Client: Weston Solutions, Inc

Project: West Vermont Street

Sample ID: WVS-MWWES-02C-100913-GW

Collection Date: 10/09/13 01:30 PM

Work Order: 1310526

Lab ID: 1310526-05

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>GASES IN WATER</b>			<b>RSK-175</b>			Analyst: <b>CW</b>
Ethane	ND		2.0	µg/L	1	10/10/13 11:27 AM
Ethene	ND		2.0	µg/L	1	10/10/13 11:27 AM
<b>Methane</b>	<b>310</b>		<b>2.0</b>	<b>µg/L</b>	2	10/10/13 11:36 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

## ALS Group USA, Corp

Date: 10-Oct-13

**Client:** Weston Solutions, Inc

**Project:** West Vermont Street

**Sample ID:** WVS-MWWES-01A-100913-GW

**Collection Date:** 10/09/13 03:42 PM

**Work Order:** 1310526

**Lab ID:** 1310526-06

**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>GASES IN WATER</b>			<b>RSK-175</b>			Analyst: <b>CW</b>
Ethane	ND		2.0	µg/L	1	10/10/13 11:29 AM
Ethene	ND		2.0	µg/L	1	10/10/13 11:29 AM
Methane	ND		1.0	µg/L	1	10/10/13 11:29 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



## ALS Group USA, Corp

Date: 10-Oct-13

**Client:** Weston Solutions, Inc

**Project:** West Vermont Street

**Sample ID:** WVS-MWWES-01B-100913-GW

**Collection Date:** 10/09/13 05:12 PM

**Work Order:** 1310526

**Lab ID:** 1310526-07

**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>GASES IN WATER</b>			<b>RSK-175</b>			Analyst: <b>CW</b>
Ethane	ND		2.0	µg/L	1	10/10/13 11:31 AM
Ethene	ND		2.0	µg/L	1	10/10/13 11:31 AM
Methane	ND		1.0	µg/L	1	10/10/13 11:31 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

## ALS Group USA, Corp

Date: 10-Oct-13

**Client:** Weston Solutions, Inc

**Project:** West Vermont Street

**Sample ID:** WVS-MWWES-01C-100913-GW

**Collection Date:** 10/09/13 06:27 PM

**Work Order:** 1310526

**Lab ID:** 1310526-08

**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>GASES IN WATER</b>			<b>RSK-175</b>			Analyst: <b>CW</b>
Ethane	ND		2.0	µg/L	1	10/10/13 11:34 AM
Ethene	ND		2.0	µg/L	1	10/10/13 11:34 AM
<b>Methane</b>	<b>20</b>		<b>1.0</b>	<b>µg/L</b>	1	10/10/13 11:34 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.